

## ABSTRACT

A spectrum coding apparatus capable of performing coding at a low bit rate and with high quality is disclosed.

5 This apparatus is provided with a section that performs the frequency transformation of a first signal and calculates a first spectrum, a section that converts the frequency of a second signal and calculates a second spectrum, a section that estimates the shape of the second

10 spectrum in a band of  $FL \leq k < FH$  using a filter having the first spectrum in a band of  $0 \leq k < FL$  as an internal state and a section that codes an outline of the second spectrum determined based on a coefficient indicating the characteristic of the filter at this time.